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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,942	01/15/2004	Dale S. Jensen	3016.2.7	5055

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EXAMINER

BARNEY, SETH E

ART UNIT PAPER NUMBER

3752

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,942

Applicant(s)

JENSEN ET AL.

Examiner

Seth Barney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/15/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: There is confusion in the plurality of the claim. It appears to switch from plural to singular in line 5 of the claim. Appropriate correction is required.
2. Claim 4 is objected to because of the following informalities: Line 10 of the claim appears to have a typographical error. "fist" should be --first--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 3 recites the limitation "a backflow preventing valve/flow rate reducing orifice" in line 1 of the claim. It is unclear if the claim is reciting a backflow preventing valve or a flow rate reducing orifice or both. For purposes of examination the claim has been interpreted as being a flow rate-reducing orifice.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,611,462 to Barkes.

Barkes disclose a fluid mixing block (132) comprising:

- a mixing block housing (10)

- at least two inlet ports (30,34) and respective inlet chambers (38,32) formed within the mixing block housing, wherein each inlet port and inlet chamber accepts an injection of a fluid at a first pressure from a supply source.

- a mixing chamber, formed within the mixing block housing, wherein fluids injected from the inlet chambers are combined and mix to form a solution of desired reactivity at a lower pressure than the first pressure.

- a dispensing port (38), formed within the mixing block housing, wherein the desired solution exists the mixing block housing.

See Figure 1A.

Regarding claim 3, the mixing block further comprises a flow rate-reducing orifice (18) attached to the mixing block housing between each inlet chamber and mixing

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chamber to reduce a rate of flow of fluid flowing therethrough and to prevent fluid from flowing back upstream into a fluid supply source. See column 5, lines 24-37.

Regarding claim 4, Barkes discloses a fluid mixing block (132) comprising:

- at least a first and second inlet port (30,34) and an outlet port (38)
- at least a first and second inlet chamber (28,32) and a mixing chamber.
- a first backflow device (18) coupled between the first inlet chamber and the mixing chamber
- a second backflow device (18, see column 5, lines 24-37) coupled between the inlet chamber and the mixing chamber;
- a first fluid located in the first inlet chamber at a first pressure, and the first fluid located in the mixing chamber at a second pressure that is less than the first pressure.
- a second fluid located in the second inlet chamber at one pressure, and the second fluid located in the mixing chamber at another pressure that is less than the one pressure.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,611,462 to Barkes as applied to claims 1 and 4 above, and further in view of U.S. Patent No. 6,749,027 to Crabtree et al.

Barkes discloses all of the limitations of the claims except for at least three chamber plugs with a filter mechanically fastened to an inlet chamber plug. Crabtree discloses a mixing block having a chamber plug (35) and filter (34). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the mixing block of Barkes with any number of the plug and filter of Crabtree in order to filter the mixing fluids.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,611,462 to Barkes as applied to claim 1 above, and further in view of U.S. Patent No. 3,949,611 to Watt.

Barkes discloses all of the limitations of the claims except for at least three chamber plugs with a filter mechanically fastened to an inlet chamber plug. Watt discloses a mixing block having a chamber plug (48) for the purpose of inspecting the inside of the mixing block. See column 3 lines 30 to 34. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

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mixing block of Barkes with any number of the plug of Watt in order allow for visual inspection of the inside of the mixing block.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S Patent No. 6,705,539 to Bien discloses a fluid mixing block having two inlets, a mixing chamber, and plugs. U.S. Patent No. 6,622,942 to Ueno et al. discloses a oil and air mixing block. U.S. Patent No. 4,113,182 discloses a mixing block have three fluid inlets, each fluid inlet having a valve to control flow. U.S. Patent No. 5,119,989 to Kamis discloses a fluid mixing block having two inlets, a mixing chamber, an outlet, and a valve in one of the inlets. U.S. Patent No. 3,023,968 to Mitchell discloses a mixing block having two inlets, a mixing chamber, and one outlet. U.S. Patent No. 5,518,033 to Webster discloses a vessel inspection plug and a method fo installing the plug. U.S. Patent No. 6,321,939 to Teat et al. discloses a vessel having an inspection plug.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seth Barney whose telephone number is (571)272-4896. The examiner can normally be reached on 7:30am-5:00pm (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571)272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seth Barney
Examiner
Art Unit 3752

sb



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